

## **2.7 Applicable Clean Air Act Requirements with Respect to Redesignation**

### **2.7.1 Redesignation to Attainment**

Section 107(d)(3)(E) of the Clean Air Act (CAA), as amended, states that an area can be redesignated to attainment if the following conditions are met:

- a) The NAAQS have been attained<sup>1</sup>.

Chapter 3 makes the case that the 24-hr PM<sub>10</sub> NAAQS and the annual average PM<sub>10</sub> NAAQS have both been attained based on the most recent three years of monitoring data. EPA's Direct Final Rule determining that Yuma has attained the PM<sub>10</sub> NAAQS beginning in 1998 became effective May 15, 2006 (71 FR 13021).

- b) The applicable implementation plan has been fully approved under Section 110(k).

The applicable plan is this Maintenance Plan submitted for approval pursuant to Section 175A of the Clean Air Act. ADEQ commits to revising this Maintenance Plan eight years after redesignation, as required by Section 175A.

- c) The improvement in air quality is due to permanent and enforceable reductions in emissions.

Sections 1.3 and 1.4 of this Chapter described the population and economic growth that has been occurring in Yuma and Yuma County. Chapter 3 reveals that there has not been a violation of the PM<sub>10</sub> NAAQS in Yuma since 1991. Chapter 6 describes the control measures that are currently in place to control PM<sub>10</sub> emissions in the Yuma area and attain the NAAQS. Clearly, the improvement in air quality in Yuma is due to permanent and enforceable reductions in PM<sub>10</sub> emissions. These reductions are expected to maintain the Yuma area in compliance with the PM<sub>10</sub> NAAQS to at least 2016, the out-year of the maintenance plan.

- d) A maintenance plan with contingency measures has been fully approved under Section 175A.

This document is the PM<sub>10</sub> maintenance plan for the Yuma area. The contingency measures for Yuma are contained in Chapter 7. ADEQ has every expectation that EPA Region IX will fully approve this maintenance plan when submitted to EPA in the spring of 2006.

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<sup>1</sup>Attainment of the 24-hour standard is determined by calculating the expected number of days in a year with PM<sub>10</sub> concentrations greater than 150 µg/m<sup>3</sup>. The 24-hour standard is attained when the expected number of days with levels above 150 µg/m<sup>3</sup> (average over a three year period) is less than or equal to one. Attainment of the annual PM<sub>10</sub> standard is achieved when the annual arithmetic mean PM<sub>10</sub> concentration over a three-year period is equal to or less than 50 µg/m<sup>3</sup> [40 CFR 50.6 (a) and (b)].

- e) The State has met all applicable requirements for the area under Section 110 and Part D.

ADEQ's fulfillment of these requirements is described in detail in Section 1.0 of Chapter 2 of this plan.

## **2.8 Applicable EPA Guidance**

In the process of completing the maintenance plan for Yuma and fulfilling the requirements of a maintenance plan fully approvable by EPA, ADEQ referred to the guidance documents listed below:

- a) PM<sub>10</sub> SIP Development Guideline, U.S. Environmental Protection Agency, OAQPS, EPA-450/2-86-001, Research Triangle Park, NC, June 1987;
- b) Procedures for Processing Requests to Redesignate Areas to Attainment, John Calcagni, Director, Air Quality Management Division, memorandum dated September 4, 1992;
- c) PM<sub>10</sub> Emission Inventory Requirements, U.S. Environmental Protection Agency, OAQPS, Research Triangle Park, NC, September 1994; and
- d) Reasonable Further Progress, Attainment Demonstration, and Related Requirements for Ozone Nonattainment Areas Meeting the Ozone National Ambient Air Quality Standard, John S. Seitz, Director, Office of Air Quality Planning and Standards (MD-10), May 15, 1995.

## **2.9 Requirements for Nonattainment Areas that Have Attained the NAAQS**

In EPA's Clean Data Finding for the Yuma PM<sub>10</sub> area, EPA determined that the following Section 172(c) planning requirements no longer apply: (1) reasonable further progress (RFP) requirements, (2) attainment demonstration, and (3) nonattainment area contingency measures. EPA deems the area to have already attained the NAAQS and to have met RFP.<sup>2</sup> General requirements for redesignation are listed below:

1. The area must be attaining the PM<sub>10</sub> NAAQS based on the three most recent years of quality assured monitored air quality data.

Chapter 3 reveals that the Yuma monitoring site during the period of 2002–2004 showed one measured exceedance (170 ug/m<sup>3</sup>) of the 24-hour PM<sub>10</sub> NAAQS, due to a natural

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<sup>2</sup> *Reasonable Further Progress, Attainment Demonstration, and Related Requirements for Ozone Nonattainment Areas Meeting the Ozone National Ambient Air Quality Standard*, John S. Seitz, Director, Air Quality Planning and Standards (MD-10), memorandum dated May 25, 1995, page 3.

wind event in the Yuma area. ADEQ flagged this event pursuant to EPA's Natural Events Policy (NEP) and Arizona's Natural and Exceptional Events Policy (NEAP) 0159.000, and EPA concurred. Consequently, this reading has been excluded from the attainment calculation for Yuma. Review of the 24-hour averages for calendar years 2002, 2003, and 2004 reveals that the highest 24-hour average was  $127 \mu\text{g}/\text{m}^3$ ; review of the annual standard reveals that the 3-year annual average was  $43.4 \mu\text{g}/\text{m}^3$ . Thus, the Yuma area also attained the annual  $\text{PM}_{10}$  NAAQS. See Section 2.7.1 for discussion of EPA's Clean Data Finding.

2. The State must continue to operate an appropriate  $\text{PM}_{10}$  air quality monitoring network, in accordance with 40 CFR Part 58, in order to verify the attainment status of the area.

The State continues to operate the Yuma monitoring network, in accordance with 40 CFR Part 58, in order to verify the attainment status of the area. The Yuma monitoring network is described in Chapter 3 of this plan.

3. The control measures for the area, which were responsible for bringing the area into attainment, must be approved by EPA as meeting reasonably available control measures (RACMs) and reasonably available control technology (RACT) requirements.

The control measures for the area, which were responsible for bringing the area into attainment, are described in Chapter 6 of this plan. The State anticipates that EPA will approve these measures as meeting RACM and RACT requirements. In addition, the abatement measures and BACM selected for the Natural Events Action Plan (NEAP) and this Maintenance Plan are included in Chapter 6. The Yuma  $\text{PM}_{10}$  planning area was classified as a Moderate  $\text{PM}_{10}$  area.

4. An emissions inventory must be completed for the area.

An emissions inventory has been completed for the Yuma area, and a detailed description is contained in Chapter 4 of this plan and in the Technical Support Document.

5. EPA must make a finding that the area attained the 24-hour and annual  $\text{PM}_{10}$  NAAQS.

$\text{PM}_{10}$  concentrations reported at the Yuma monitoring site between 2002 and 2004 showed no measured exceedance of the 24-hour  $\text{PM}_{10}$  NAAQS, other than the flagged exceedance with which EPA concurred. Thus, the three-year average was less than one exceedance per year, which demonstrates Yuma attained the 24-hour  $\text{PM}_{10}$  NAAQS. The highest 24-hour reading was  $127 \mu\text{g}/\text{m}^3$ , well below the  $150 \mu\text{g}/\text{m}^3$  24-hour NAAQS. Review of the annual standard for calendar years 2002, 2003, and 2004 reveals that the 3-year annual average was  $43.4 \mu\text{g}/\text{m}^3$ ; thus, the Yuma area also attained the annual  $\text{PM}_{10}$  NAAQS. Based on clean data 1998 to date, EPA made a Clean Data Finding effective May 15, 2006.

In addition to these requirements, any requirements that are connected solely to designation or classification, such as new source review (NSR) and RACM/RACT, must remain in effect. Chapter 6 includes a description of RACMs implemented in the Yuma area to control PM<sub>10</sub> emissions. It also contains a description of BACMs included in the Yuma NEAP. No sources are currently subject to BACT in this planning area. The requirement under CAA Section 172(c) for reasonable further progress (RFP) demonstrations is waived by the Clean Data Finding. Finally, transportation and general conformity requirements continue to apply in the Yuma area. The use of the Clean Data Policy does not constitute a CAA Section 107(d) redesignation, but only serves to fulfill one of the requirements for redesignation.

## **2.10 Clean Air Act Requirements for Maintenance Plans**

Section 107(d)(3)(E) of the CAA stipulates that for an area to be redesignated, EPA must fully approve a maintenance plan that meets the requirements of Section 175A. Section 175A defines the general requirements of a maintenance plan. These requirements are as follows:

1. The maintenance plan is a SIP revision.

The maintenance plan must provide for maintenance of the relevant NAAQS in the area for at least ten years after redesignation. Chapter 6 demonstrates that the control measures in place in the Yuma area are adequate to maintain the PM<sub>10</sub> NAAQS until the out-year 2016.

2. The maintenance plan shall contain additional control measures necessary to ensure maintenance of the PM<sub>10</sub> NAAQS.

Section 175A of the CAA states that the maintenance plan shall contain additional measures, if necessary, to ensure maintenance of the relevant NAAQS for ten years after redesignation. The control measures are described in Chapter 6 of this plan. The U.S. Army's emission factor study scheduled for completion in 2009 may lead to further control measures, should they become necessary to maintain the standard.

3. The maintenance plan must be revised eight years after redesignation.

Section 175A also requires that the state submit a revision of the maintenance plan eight years after the original redesignation request is approved to provide for the maintenance of the NAAQS for an additional ten years following the first 10-year period. ADEQ commits to revise this maintenance plan eight years after the effective date of redesignation.

4. The maintenance plan must contain contingency measures.

Section 175A of the CAA requires that a maintenance plan include contingency provisions, as necessary, to promptly correct any violation of the NAAQS that occurs after redesignation of the area. These contingency measures are different than those generally required for nonattainment areas under Section 172(c)(9). For the purposes of Section 175A, the contingency measures do not have to be fully adopted in order for the maintenance plan to be approved. Chapter 7 describes the contingency measures contained in this maintenance plan and the trigger for them. At a minimum, the contingency measures must include a requirement that the State will implement all measures contained in the nonattainment SIP prior to redesignation.

## 5. Core Provisions

In addition to the requirements listed above, the maintenance plan should contain core provisions that will be necessary to ensure maintenance of the relevant NAAQS in the area seeking redesignation from nonattainment to attainment.

- a. The state should develop an attainment emissions inventory.

EPA has made a clean data finding for Yuma. An emissions inventory is in this Maintenance Plan and is further explained in the TSD to this Maintenance Plan.

- b. The state should make a maintenance demonstration.

The state may generally demonstrate maintenance of the NAAQS by either showing that future emissions of the relevant pollutant will not exceed the level of the attainment inventory or by modeling to show that the future mix of sources and emission rates will not cause a violation of the NAAQS. The demonstration should be for a period of ten years following the redesignation. The maintenance demonstration through 2016 is in Chapter 5.

- c. The state should continue to operate its monitoring network.

Once an area has been redesignated, the state should continue to operate an appropriate air quality monitoring network, in accordance with 40 CFR Part 58, to verify the attainment status of the area. The maintenance plan should contain provisions for continued operation of air quality monitors that will provide such verification. ADEQ commits to operate the air quality monitor on a continual basis in the Yuma area in Chapter 7.

- d. The state should verify continued attainment.

The state should ensure that it has the legal authority to implement and enforce all measures necessary to attain and to maintain the NAAQS. A.R.S. § 49-404 and A.R.S. § 49-406 provide this authority to Arizona.